PERFORMANCE MEASUREMENT MATTERS

DEPARTMENT OF MANAGEMENT & BUDGET

Fairfax County, Virginia

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INSIDE

How Are YOU Using Performance Measures?

The Performance Measurement Team is looking for some good examples of how County agencies are using performance measures to manage operations on a day-to-day basis as well as for long-range planning. From working with agencies, it is apparent that a number of you are creative and conscientious about developing and using performance measurement. We'd like to hear from you so your good practices can be shared with others who could benefit from your experience. Future issues of this newsletter will highlight those practices found to be working well for agencies. Please call or e-mail Barbara Emerson (BEMERS) at 324-3009.

Visit us on the County Intranet at http://infoweb/omb/pfmeasure.htm

FY 2000 Budget to be Released Late February 1999

County agencies submitted their FY 2000 Performance Measures this past fall. The Department of Management and Budget (DMB) has reviewed and incorporated them into the budget narratives published as part of the County Executive's FY 2000 Advertised Budget Plan that will be made public, Monday, February 22, 1999.

However, before that date, some agencies have been asked to make improvements such as ensuring that their objectives are quantified and match outcomes, that a complete family of measures (output, efficiency, service quality and outcome) has been provided for each objective, and that the focus is **outcome, not output**.

DMB recently provided a memorandum with feedback to various agencies, requesting that they address the remaining issues prior to the release of the FY 2000 Budget. If your agency received such a memorandum, it is important that you work with your DMB analyst and/or the PM Team to resolve the issues as soon as possible. If there are extenuating circumstances that preclude providing the requested information in time for the FY 2000 Advertised Budget Plan, it is critical that you address them by the time the FY 2000 Adopted Budget Plan is prepared in early May 1999.

Internal Audit Reviews Performance Data

In order to ensure that the data presented as part of Fairfax County's performance measurement (PM) effort are credible, reliable and consistent with the County's PM methodology, the Office of Internal Audit included a review of 14 agencies' information in its FY 1999 Audit Plan. It is anticipated that this type of review will be annual, with a focus on different agencies. So if yours was not among the initial group selected, don't worry; they'll eventually get to you. Their report will be provided to the County Executive later in FY 1999; however, an idea of what to expect in such an audit, the next article provides a first-person look at the Department of Planning and Zoning's experience.

Help! We're Being Audited!

by Sara Simmons, Department of Planning & Zoning

audit \ ödt \ a formal examination of an organization's accounts or financial situation; a methodical examination and review of data.

When the Department of Planning and Zoning (DP&Z) first received word from the Office of Internal Audit (IA) that our FY 1999 performance measures would be audited, our initial reaction was a collective groan, followed by the thought that this could be a great opportunity to have someone outside of our business provide constructive feedback which would make our measures that much more effective and "real." Actually, I think the "oh no!" was just a knee jerk reaction, and once we started talking among ourselves, we realized we were probably in pretty good shape. However, that little voice of doubt kept us asking ourselves, "What would they ask? Would we have the right information? How would we fare?" and "Why us?"

We were still struggling with our FY 2000 performance measures and were working with DMB to make minor modifications when we got the call. A meeting was scheduled, which several staff from our agency attended. Prior to the meeting with IA, however, we (DP&Z) had several pre-meeting discussions of what we needed to pull together. IA had faxed over a questionnaire, requesting us to fill in as many of the blanks that we could — and there were a lot of blanks!!! We did find out later in our meeting with them that this was their "beta" questionnaire and that they will likely reduce/modify the format for future years. Our job was to make copies of all our data to show where we were getting the numbers and how we were evaluating them.

The meeting itself was actually very informative and constructive. We met for a short time with one of the auditors who explained the process, as well as how the final report would probably be formatted. He then asked us a few questions such as "how do you collect the information for this particular indicator?" "Is there a way to make this outcome a bit clearer?" "What information are you trying to convey?" "How would you suggest to make this a better process?"

After answering their questions and then looking back on the process, we concluded that 1) we were on the right track; and 2) the audit wasn't that bad!

Performance Measurement Matters is published quarterly by the PM Team. Editor: Barbara Emerson, Technical Support by Frann Mummert, Department of Management and Budget. Contributing: Sara Simmons, Department of Planning and Zoning; and Patti Innocenti, Line Maintenance Division.

About Statistical Sampling

by Patti Innocenti, Line Maintenance Division and Anne Cahill, DMB

In the course of measuring performance, agencies invariably encounter the challenge of surveying their customer base in order to get feedback on satisfaction with services provided. It is also noted that most staff are not trained statisticians — in fact, the majority would probably go to any length to try to avoid having to deal with any calculations that go beyond simple addition and subtraction.

If a manager wishes to obtain information about a service population, he or she has two basic options: 1) to collect information from every member of the population, a census; or 2) to collect information from a selected subset of the population, a sample. Contacting, questioning and obtaining information from a large population is extremely expensive, difficult and time-consuming. A properly designed probability sample, however, provides a reliable means of inferring information about the whole population without contacting or examining every member. In fact, a probability sample frequently is more accurate than a census of the entire population. The smaller sampling operation lends itself to the application of more rigorous controls, thus ensuring better accuracy.

There are two general categories of sampling methodologies, probability sampling and nonprobability sampling. A probability sample gives each member of the population a known chance of being selected. For instance, a simple random sample of 500 persons out of a population of 10,000 gives each person a 1 in 20 chance of being included in the sample. In a nonprobability sampling, the chance of being included in the sample is not known. This often occurs when the size of the total population is unknown or the location of every member of the total population is unknown.

Probability samples tend to be more difficult and costly to conduct, but are the only type of sample where the results can be generalized from the sample to the entire population and the accuracy of the results can be estimated. Nonprobability samples, in contrast, do not allow the study's findings to be generalized from the sample to the population. When discussing the results of a nonprobability sample, the manager must limit his or her findings to the persons or elements sampled. Nonprobability samples tend to be less complicated and less time-consuming than probability samples. If the manager has no intention of generalizing beyond the sample, a nonprobability sample will produce the desired information.

The size of a probability sample is primarily based on the level of accuracy desired and the amount of staff and financial resources a manager has for conducting the study. The size of the total population being studied has only a minor effect on sample size. However, if the manager suspects a large amount of variation among members of the population on an important characteristic or wishes to analyze results by sub-groups, larger sample sizes will be needed to achieve the desired accuracy.

Statisticians have developed a formula that identifies the sample size by population size for various degrees of accuracy and confidence levels. This information is readily available in table format in texts such as Research Methods for Public Administrators by Elizabethann O'Sullivan and Gary R. Rassel (Longman Publishing, 1989).

Charts are provided in these types of texts that estimate sample sizes for various populations when a manager desires the estimates from the study to be within +/- 5% of the actual percent exhibited by the whole population at a 95% confidence level. What this means is that the results from the sample should fall within +/-5% of the actual in 95 out of 100 studies, but in 5 out 100 studies the sample results may fall beyond this range, giving the manager an incorrect estimate. Random events that result in faulty samples due to chance are called sampling error.

Methods for calculating the accuracy and confidence levels of a sample's results are meaningful only if a 100% response rate is achieved. In practice, 100% response rates are rarely achieved, but it is very important to design the study to achieve response rates as close to 100% as possible. In samples where less than a 100% response rate is obtained, nonsampling bias or error is likely to occur because those responding to the study are often different than those who do not participate. Increasing the sample size so that a certain number of responses are obtained does not increase accuracy. A sample of 200 persons with a 100% response rate is much more accurate than a sample of 1,000 with a 50% response rate. When those who do not respond are different from those who do respond, an estimated +/- 3.2% precision level with a 100% response rate can widen to a +/- 12.8% precision level with an 80% response rate. Low response rates are only one type of nonsampling error. Nonsampling error can also occur from poorly designed questions and forms; interviewer bias or mistakes; data coding, cleaning and processing errors; and faulty analysis.

Each agency that relies on statistical sampling for performance measurement data will need to select the method most appropriate for its needs. For example, where the service population is relatively constrained, e.g., persons participating in a recreation class, an agency may want to sample the entire customer base. However, for another service area, such as Library patrons, where there are over 700,000 registered cardholders and in excess of 5,000,000 Library visits per year, it would be impossible to survey each and every customer.

This information is only intended to serve as a starting point. If you have any questions about developing a sample or using the data collected, please contact any of the PM Team Members listed below:

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Winning Websites

There are numerous Internet websites that contain very useful performance measurement information. An ongoing section of this newsletter will reference some of these sites. Many others can also be accessed through the DMB Infoweb. You may want to view:

www.state.az.us/ospb

This State of Arizona site is interesting because it contains a combined strategic planning and performance measurement handbook with a methodology that contains many similarities to Fairfax County's approach. Their Master List of State Programs and FY 1999 Executive Budget also contain samples of measures used.

www.rutgers.edu/Accounting/raw/gasb/seagov/home/htm

This is the site of the Governmental Accounting Standards Board (GASB) of the U.S. It offers a performance measurement information clearinghouse for governments and includes both general information about performance measurement, as well as more specific examples in various program areas, such as fire, police, mass transit, health, etc.